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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,051	02/26/2004	Arthur M. Krieg	C1039.70083US06	8295

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EXAMINER	
OGUNBIYI, OLUWATOSIN A	
ART UNIT	**PAPER NUMBER**
1645	

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No. 10/789,051	Applicant(s) KRIEG ET AL.	
	Examiner Oluwatosin Ogunbiyi	Art Unit 1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

The amendment document filed on *26 February 2004* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☐ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B. Other _____.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☐ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *See Continuation Sheet*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):
  See Continuation Sheet

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

   Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

   Failure to timely respond to this notice will result in:
   Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or
   Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

Legal Instruments Examiner (LIE), if applicable _____ Telephone No. _____

Patricia A. Duffy
PATRICIA A. DUFFY
PRIMARY EXAMINER

Continuation of 4e:

The originally filed claims are imporperly numbered 1-36. Claims 21-29 were missing from the list of originally filed claims (See attachment). The originally filed claims are not in compliance with 37 CFR 1.126 which requires sequence order. The proper numbering of the originally filed claims have resulted in claims numbered 1-27 not 1-36. Consequently, the preliminary amendment is improper because it refers to non-existing claims. As such, applicants are required to resubmit the preliminary amendment reflecting originally filed claims 1-27 and new claims 28-47.

CLAIMS

1. An oligonucleotide comprising from about 2 to about 100 nucleotides and containing at least one unmethylated CpG dinucleotide.

2. The oligonucleotide of claim 1 which is represented by the following formula:

$$5' \quad X_1X_2CGX_3X_4 \quad 3'$$

wherein C and G are unmethylated, X_1, X_2, X_3 and X_4 are nucleotides and a GCG trinucleotide sequence is not present at or near the 5' and 3' termini.

3. The oligonucleotide of claim 2 having a phosphate backbone modification.

4. The oligonucleotide of claim 3 wherein the phosphate backbone modification is a phosphorothioate backbone modification.

5. The oligonucleotide of claim 4 comprising the following nucleotide sequence:

5' GGGGTCAACGTTGAGGGGGG 3' (SEQ ID NO:1)

6. The oligonucleotide of claim 5 having a phosphate backbone modification.

7. The oligonucleotide of claim 6 wherein the phosphate backbone modification is a phosphorothioate modification.

8. An oligonucleotide delivery complex comprising the oligonucleotide of claim 1 and a targeting means.

9. An oligonucleotide delivery complex of claim 8, wherein the targeting means is selected from the group consisting of cholesterol, virosome, liposome, lipid, a target cell specific binding agent

10. A pharmaceutical composition comprising the oligonucleotide of claim 9 and a pharmaceutically acceptable carrier.

11. A pharmaceutical composition comprising the oligonucleotide of claim 2 and a pharmaceutically acceptable carrier.

12. A method for activating a subject's B cells comprising contacting the B cells with an effective amount of the oligonucleotide of claim 1.

13. A method for activating a subject's B cells comprising contacting the B cells with an effective amount of the oligonucleotide of claim 2.

14. A method for activating a subject's natural killer cells comprising contacting the natural killer cells with an effective amount of the oligonucleotide of claim 1.

15. A method for activating a subject's natural killer cells comprising contacting the natural killer cells with an effective amount of the oligonucleotide of claim 2.

16. A method for treating, preventing or ameliorating an immune system deficiency in a subject comprising administering to the subject an effective amount of a pharmaceutical composition of claim 10.

17. A method for treating, preventing or ameliorating an immune system deficiency in a subject comprising the steps of:

a) contacting lymphocytes obtained from the subject with a composition of claim 1 ex vivo, thereby producing activated lymphocytes; and

b) readministering the activated lymphocytes obtained in step a) to the subject.

18. A method for vaccinating a subject comprising administering to the subject a composition of claim 10 in conjunction with administration of a vaccine.

19. A method for treating a disease associated with an immune system activation in a subject comprising administering to the subject an effective amount of a neutral oligonucleotide alone or in conjunction with a pharmaceutically acceptable carrier.

20. A method of claim 19 wherein the disease associated with immune system activation is systemic lupus erythematosus.

30. A method of claim 19 wherein the disease associated with immune system activation is sepsis.

31. An improved method for performing antisense therapy comprising methylating CpG containing oligonucleotides prior to administration to a subject.

32. An improved method for in vivo diagnoses using oligonucleotide probes comprising methylating CpG containing oligonucleotides prior to administration to a subject

33. An oligonucleotide which is capable of interfering with the activity of viral or cellular transcription factors and containing a consensus immunoinhibitory CpG motif represented by the formula:

$$5'GCGXnGCG3'$$

wherein X = a nucleotide and n = in the range of 0-50.

34. An oligonucleotide of claim 33, wherein X is a pyrimidine.

35. An oligonucleotide of claim 34, wherein Xn is a CpG dinucleotide

36. A method for treating or preventing a viral infection in a subject comprising administering to the subject an immunoinhibitory oligonucleotide of claim 33.